

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

broad, the definition of each of "inclined" and "inclination" is clear and definite. The Examiner's arguments for the necessity to incorporate the "acute angle" language are actually directed to prior art concerns. The Examiner has failed to successfully
5 indicate what makes the current inclined/inclination language incorporated in claim 1 to be indefinite. As set forth in MPEP § 2173.04, the breadth of a claim should not be equated with indefiniteness. For all the foregoing reasons, Applicants submit that the claims are now in allowable form and hereby respectfully
10 request that the rejection thereof under 35 USC § 112, second paragraph, be withdrawn.

Responsive to the rejection of claims 1-9 under 35 USC § 102 (b) as being anticipated by or, in the alternative, under 35 USC § 103 (a) as being obvious over JP 59-215718 (Hiura), Applicants have
15 amended claims 1 and 3-9 and have previously canceled claim 2. Applicants submit that claims 1 and 3-9 are now in condition for allowance.

Independent claims 1, 7, and 8, as amended, each recite in part:

20 the relative positioning and the directionality of a particular pore type being unique to that said particular pore type with respect to others of said pore types...

Applicants submit that such an invention is neither taught,
25 disclosed, nor suggested by Hiura or any of the other cited references, alone or in combination.

With respect to Hiura, the Examiner has argued that the claims do not require the various groups of fine pores to be separate from each other, arguing that a group of fine pores can perform more than one function. In fact, the pores 4 of Hiura only perform the function of centering, due to their positioning. Pores 4 are not positioned the same as the auxiliary fine suppression pores of the present invention. Moreover, as amended, each of independent claims 1, 7, and 8 now essentially require that each pore type have a unique relative positioning and directionality associated therewith. Thus, Hiura fails to teach or suggest the present invention as set forth in each of amended claims 1, 7, and 8.

For all the foregoing reasons, Applicants submit that claims 1, 7, and 8, and those claims depending therefrom, are now in condition for allowance and hereby respectfully request that the rejection thereof based upon Hiura be withdrawn.

Responsive to the rejection of claims 1-9 under 35 USC § 103 (a) as being unpatentable over Hiura (JP '718) in view of U.S. Patent Number 4,738,748 (Kisa), Applicants have amended claims 1 and 3-9 and have previously canceled claim 2. Applicants submit that claims 1 and 3-9 are now in condition for allowance.

Independent claims 1, 7, and 8, as amended, each recite in part:

the relative positioning and the directionality of a particular pore type being unique to that said particular pore type with respect to others of said pore types...

Applicants submit that such an invention is neither taught, disclosed, nor suggested by Hiura, Kisa, or any of the other cited references, alone or in combination.

For the reasons set forth above, Hiura fails to teach or suggest the present invention as set forth in amended claims 1, 7, and 8.

Kisa '748 discloses a wafer floatation and rotation apparatus having two sets of rotation pores (Fig. 5). The Examiner argues that it would have been obvious to add an additional set of rotation pores to the invention of Hiura and further submits an extra set of rotation pores, as illustrated by Kisa, would inherently function as vibration suppression pores. However, Kisa does not disclose or suggest a set of vibration suppression pores that have a relative positioning and directionality associated therewith that is unique to that set of pores relative to the other pore types. Thus, Kisa fails to teach or suggest the present invention as set forth in amended claims 1, 7, and 8 and fails to overcome the shortcomings associated with Hiura.

Responsive to the rejection of claims 8 and 9 under 35 USC § 103 (a) as being unpatentable over Hiura in view of Kisa, and further in view of U.S. Patent Number 4,622,918 (Bok), WO 98/01890 (Granneman), U.S. Patent Number 6,005,226 (Aschner), or U.S. Patent Number 6,001,175 (Maruyama), Applicants have amended claims 8 and 9 and submit that claims 8 and 9 are now in condition for allowance.



Applicants submit that Hiura in view of Kisa fails to teach or suggest the present invention as set forth in claims 8 and 9 for the reasons set forth above with respect to claim 8. Furthermore, Applicants submit that the Examiner has not sufficiently indicated how any or all of Bacht, Granneman, Aschner, and/or Maruyama is able to overcome the shortcomings associated with the combination of Hiura in view of Kisa. Thus, Applicants submit that claims 8 and 9, as amended, are now in condition for allowance and hereby respectfully request that the rejection thereof over Hiura in view of Kisa and further in view of Bacht, Granneman, Aschner, or Maruyama be withdrawn.

Applicants respectfully submit that the rejection of claims 8 and 9 over Hiura in view of Kisa alone appears to be improper since the Examiner has indicated, by further rejecting claims 8 and 9 over Hiura in view of Kisa and taken in view of various other references, has essentially admitted that the combination of Hiura in view of Kisa does not teach or disclose each and every element of claims 8 and 9, as is required under 35 USC § 103 (a) for a rejection to be considered proper.

Responsive to the rejection of claims 7-9 under 35 USC § 103 (a) as being unpatentable over Granneman (WO '890) in view of Hiura (JP '718), and U.S. Patent Number 5,273,588 (Foster), Applicants have amended claims 7-9 and submit that claims 7-9 are now in condition for allowance.

Claims 7 and 8, as amended, each recite in part:

the relative positioning and the directionality associated
with a particular pore type being unique to that said
particular pore type with respect to others of said pore
types...

Applicants submit that such an invention is neither taught,
disclosed, nor suggested by any of the cited references, alone or in
combination.

The Examiner contends that it would have been obvious to
provide the flotation pores of Granneman's wafer processing
apparatus within the pore arrangement disclosed by Hiura and Kisa.
However, Applicants respectfully submit that the combination of
Hiura and Kisa, for reasons set forth above, does not disclose or
suggest the pore arrangement as set forth in each of independent
claims 7 and 8, as amended. Furthermore, Foster fails to overcome
the shortcomings associated with the other references applied as
part of this rejection. Thus, Applicants submit that claims 7-9 are
now in condition for allowance and hereby respectfully request that
the rejection thereof based upon Granneman in view of Hiura, Kisa,
and Foster be withdrawn.

Claim 9 is rejected under 35 USC § 103 (a) as being
unpatentable over Granneman in view of Hiura, Kisa, and Foster, and
further in view of Nishitani and White. However, claim 9 is
dependent upon claim 8, which is in condition for allowance for the
reasons set forth above. Accordingly, Applicants submit that claim

9 is also in condition for allowance, the allowance of which is hereby respectfully requested.

Responsive to the rejection of claims 7-9 under 35 USC § 102 (e) as being anticipated by or, in the alternative, under 35 USC § 103 (a) as being obvious over Aschner or Maruyama, Applicants have amended claims 7-9 and submit that claims 7-9 are now in condition for allowance.

Amended claims 7 and 8 each recite in part:

the relative positioning and the directionality associated with a particular pore type being unique to that said particular pore type with respect to others of said pore types...

Applicants submit that such an invention is neither taught, disclosed, nor suggested by Aschner, Maruyama, or any of the other cited references, alone or in combination.

The Examiner contends that the gas injection pores of Aschner and Maruyama inherently perform the functions of both floating and rotating the wafer and that the pores thereof inherently suppress vibration by rotation. As such, neither Aschner nor Maruyama teach or disclose uniquely positioned and directed sets of pores that are specifically designed for one of floating, rotating, and suppressing vibration of the wafer. Thus, Aschner and Maruyama each fail to teach or suggest the present invention as set forth in each of amended claims 7 and 8.

For all the foregoing reasons, Applicants submit that claims 7-9 are now in condition for allowance and hereby respectfully request

that the rejection thereof based upon Aschner or Maruyama be withdrawn.

Responsive to the rejection of claims 7-9 under 35 USC § 103 (a) as being unpatentable over either Aschner or Maruyama, in view of Kisa, Applicants have amended claims 7-9 and submit that claims 7-9 are now in condition for allowance. As set forth above, none of Aschner, Maruyama, and Kisa, alone or in combination, discloses or suggests all the various sets of uniquely positioned and directed pore sets set forth in either of amended claims 7 and 8.

Accordingly, Applicants submit that claims 7-9 are now in condition for allowance and hereby respectfully request that the rejection thereof based upon Aschner or Maruyama, in further view of Kisa, be withdrawn.


Applicants submit that the rejection of claims 7-9 based solely upon one of Aschner or Maruyama must be considered improper as the Examiner has essentially admitted, by rejecting those claims under Aschner or Maruyama further in view of Kisa, that Aschner and/or Maruyama do not disclose or suggest each and every element of claims 7-9, as required for a proper prior art rejection.

Claim 10 has been added to further protect the patentable subject matter of the present invention. Applicants submit that no new matter is added in by such claim and that such an invention is neither taught, disclosed, nor suggested by any of the cited art, alone or in combination. Specifically, Hiura does not have auxiliary fine suppression pores. The Examiner states that a group

of fine pores can perform more than one function. The possibility to perform the same function as the auxiliary fine suppression pores in the present invention is limited to pores 4 of Hiura. However, the pores 4 of Hiura only perform the function of the centering pores of the present invention. This is the case because the location of such pores is different. The location of the auxiliary fine suppression pores of the present invention is outer of that of the centering pores. On the other hand, all the pores 4 in Hiura are located in a certain circle 4'.

If the Examiner has any questions or comments that would speed prosecution of this case, the Examiner is invited to call the undersigned at 260/485-6001.

Respectfully submitted,


Randall J. Knuth
Registration No. 34,644

RJK/mdc10

Encs: Amendments to the Claims
Return Postcard

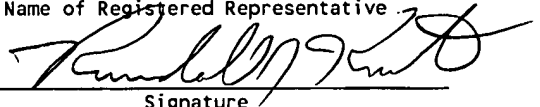
RANDALL J. KNUTH, P.C.
3510-A Stellohorn Road
Fort Wayne, IN 46815-4631
Telephone: 260/485-6001
Facsimile: 260/486-2794

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Hon. Commissioner of Patents and Trademarks, Washington, D.C. 20231, on: July 14, 2003.

Randall J. Knuth, Regis. No. 34,644

Name of Registered Representative


Signature

July 14, 2003

Date